

Presented by:  
Dan Kuti & Kevin Ball  
DEP/DWQ

NJWMC Meeting  
Oct 3, 2012



# Stormwater Permitting and Monitoring

“Polluted stormwater runoff is a leading  
cause of impairment to the nearly 40  
percent of surveyed U.S. water bodies”

-USEPA

# Permit Program Overview

## Regulates Point Source and Nonpoint Source Discharges to ALL Waters of the State

**Emphasis on Pollution Prevention:**

- **Develop Stormwater Pollution Prevention Plan (SPPP)**
- **Best Management Practice Implementation (BMP)**
- **Compliance v.s. Enforcement**



# Who is regulated under NJPDES Stormwater Discharge Permit Program ?

- Stormwater discharges associated with industrial activity (includes DGW)
- Municipal Separate Storm Sewer Systems (MS4s)



# Permit Types

## BMP based

- Basic Industrial GP (~2100)
- Construction GP (~3000)
- CAFO General Permit (5)
- Municipal Permits (~300)
  - Tier A, Tier B, Public complex, Highway agency

## With Monitoring requirements

- Individual (~260)
- Mining and Quarry GP (~210)
- Concrete GP (~130)
- Asphalt GP (~40)
- Airport GP
- Scrap Metal GP
- Vehicle Recycling GP
- Compost GP



# Objective of All Permits

- Identify and control potential sources of pollution which may affect the quality of stormwater discharges to surface or ground waters of the state
- Describe and ensure that practices are implemented to eliminate and/or reduce pollutants (BMPs)
- Ensure compliance with the terms and conditions of your permit - Ongoing Monitoring

# Permit Requirements

## ■ BMPs

- preventative, remedial and management measures that reduce the availability, detachment and transport of pollutants to both ground and surface waters

## ■ Measurable Standards that a facility is responsible for meeting

- Drainage Control
- Ongoing Inspections
- Numerical Limits
- Design Criteria



# Monitoring Requirements

## ■ Permit Application Characterization Sample

## ■ Discharge Compliance

- Implement Stormwater Pollution Plan (SPPP)
- Compliance Monitoring
  - » Sample Collection
    - Can be a grab or multi-grab
  - » Analyze parameters associated with the industrial activity - Certified Lab
  - » Results reported on DMRs
    - Frequency varies
    - Rain Data reported on WCRs
  - » Annual Inspections





# Permit Monitoring Issues

- Characterization samples are not always representative of site discharges
- No established water quality limits for stormwater discharges
- Samples are low frequency and often simple grab samples
- Samples are taken by permittee
- Limited or inaccessible resources for stream data
- Inability to identify water quality improvements





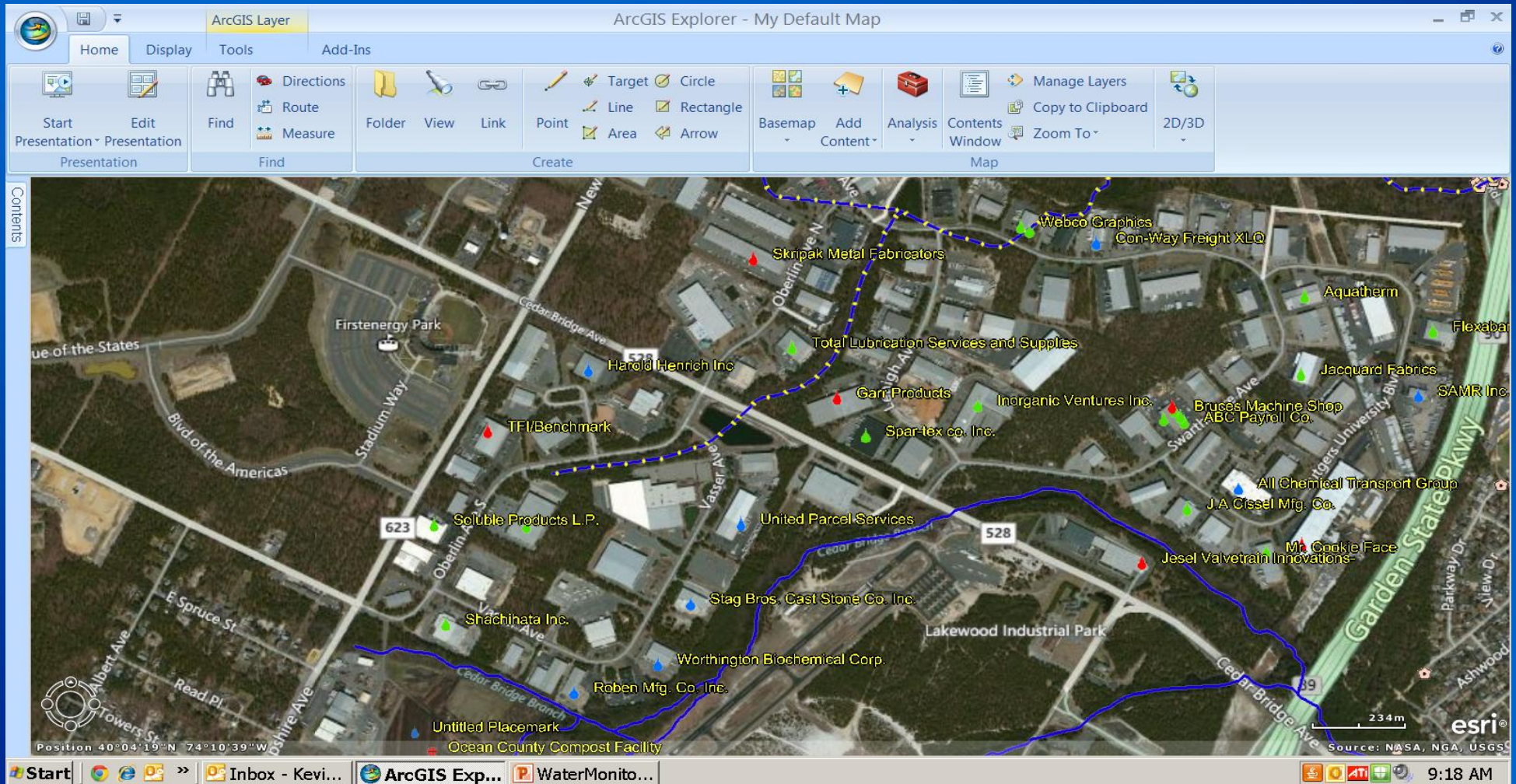
# Change in Stormwater Permitting Philosophy

- Move from “shotgun” and case by case statewide permitting to strategic watershed permitting.
- Identify and assess known and potential impacts spatially and address cumulative impacts
- Incorporate all available data sources in assessment.
- Issue new and modify current permits to address impacts

# New Philosophy in Practice

- Select pilot area to test in
- Attempt to address permit monitoring issues
- Develop useful tools to achieve our goal

# Permitted Site Identification





# User-Friendly Data Table

ArcGIS Explorer - My Default Map

Home Display Tools Add-Ins

Start Edit Presentation Presentation Presentation

Find Measure Find

Folder View Link Create

Point Line Area Target Circle Rectangle Arrow

Basemap Add Content Analysis Contents Window Map

Manage Layers Copy to Clipboard Zoom To 2D/3D

**Stavola Industries LLC**

Stavola Industries LLC	
SHAPE	Point
FACILITY	Stavola Industries LLC
PI	263540
NJPDES	NJG0160890
DISTYPE	R4
PERMITTYPE	Hot Mix Asphalt Stormwater General Permit
ACTIVITIES	Stormwater Hot Mix Asphalt Producer
PARAMETERS	TPHC, TSS, TDS, COD, Diesel Oil #2, Surfactants (mbas), Total Chromium, Total Lead, Benzene
OPERATION_MONTHS	Mar-Nov (weather dependant)
RECEIVING_WATER	Metedeconk River; FW2-NTC1
MONITORING_FREQ	Quarterly
MONITORING_NOV	
WEB_URL	<a href="http://www.bing.com/maps/?v=2&amp;cp=qpcmb18tmhv5&amp;ll=18.58705581699922&amp;dir=358.84463007119535&amp;st=b">http://www.bing.com/maps/?v=2&amp;cp=qpcmb18tmhv5&amp;ll=18.58705581699922&amp;dir=358.84463007119535&amp;st=b</a>
WMA	13
SITE_ID	15808
FOLDER	R4 Asphalt
PI_ID	263540
COMMENT	
BNPC_INSPECTOR	LLubiak, KBall, MKIewin, AWashington- BNPC
BNPC_INSP_DATE	10/28/2010
BNPC_INSP_REPORT	<a href="http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&amp;Select+a+Site=15808">http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&amp;Select+a+Site=15808</a>
BNPC_INSP_PHOTOS	

Position 40°04'40"N 74°09'12"W

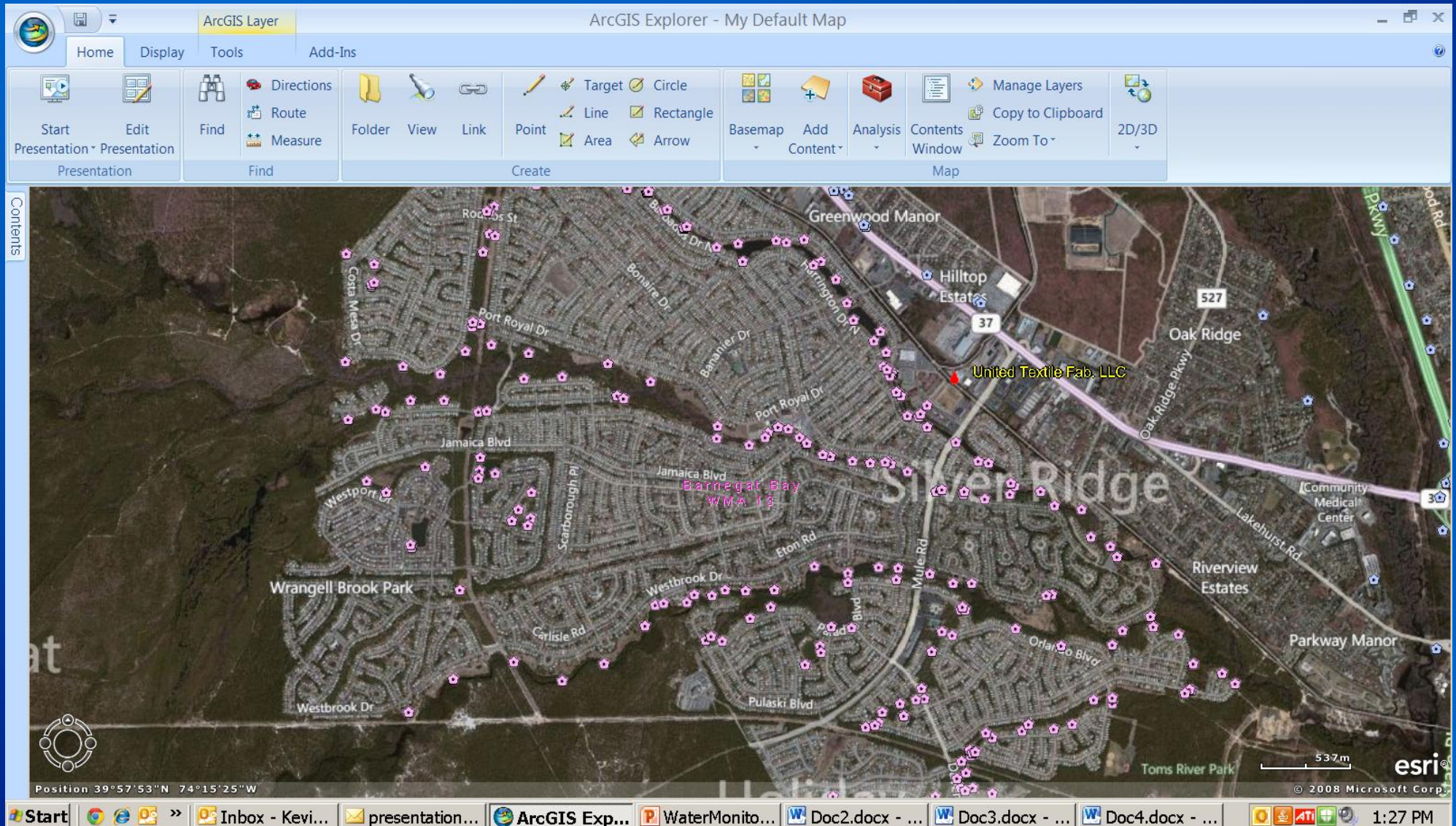
Source: USGS

esri®

1:17 PM



# MS4 Outfall Verification





# User-Friendly Outfall Table

ArcGIS Explorer - My Default Map

Home Display Tools Add-Ins

Start Presentation Edit Presentation Presentation

Find Find

Directions Route Measure

Folder View Link

Create

Point Line Area Target Circle Rectangle Arrow

Basemap Add Content Analysis Contents Window Map

Manage Layers Copy to Clipboard Zoom To 2D/3D

Contents

1326

OutfallType	Outfall
Outfall_ID	455
OwnerType	Municipal
Owner	Berkeley Township
OutfallDescription	Flared end section
OutfallCondition	Poor
PipeMaterial	Concrete
PipeShape	Circular
PipeHeight	18"
PipeWidth	18"
HeadwallCondition	
HeadwallDescription	
BMPPresent	No
BMPStructure	
BMPComment	
ScouringPresent	Yes
ScouringComment	large sediment bar, deep scour
TypeAreaDrained	Suburban
PrecipLast24hrs	Yes
TimeRain	
SnowMeltLast24hrs	No
Flowing	
DryWeatherFlow	No
Flow_Color	Clear
Flow_Odor	No
Flow_Foam	No
Solids_Floatables	No
Flow_Comment	

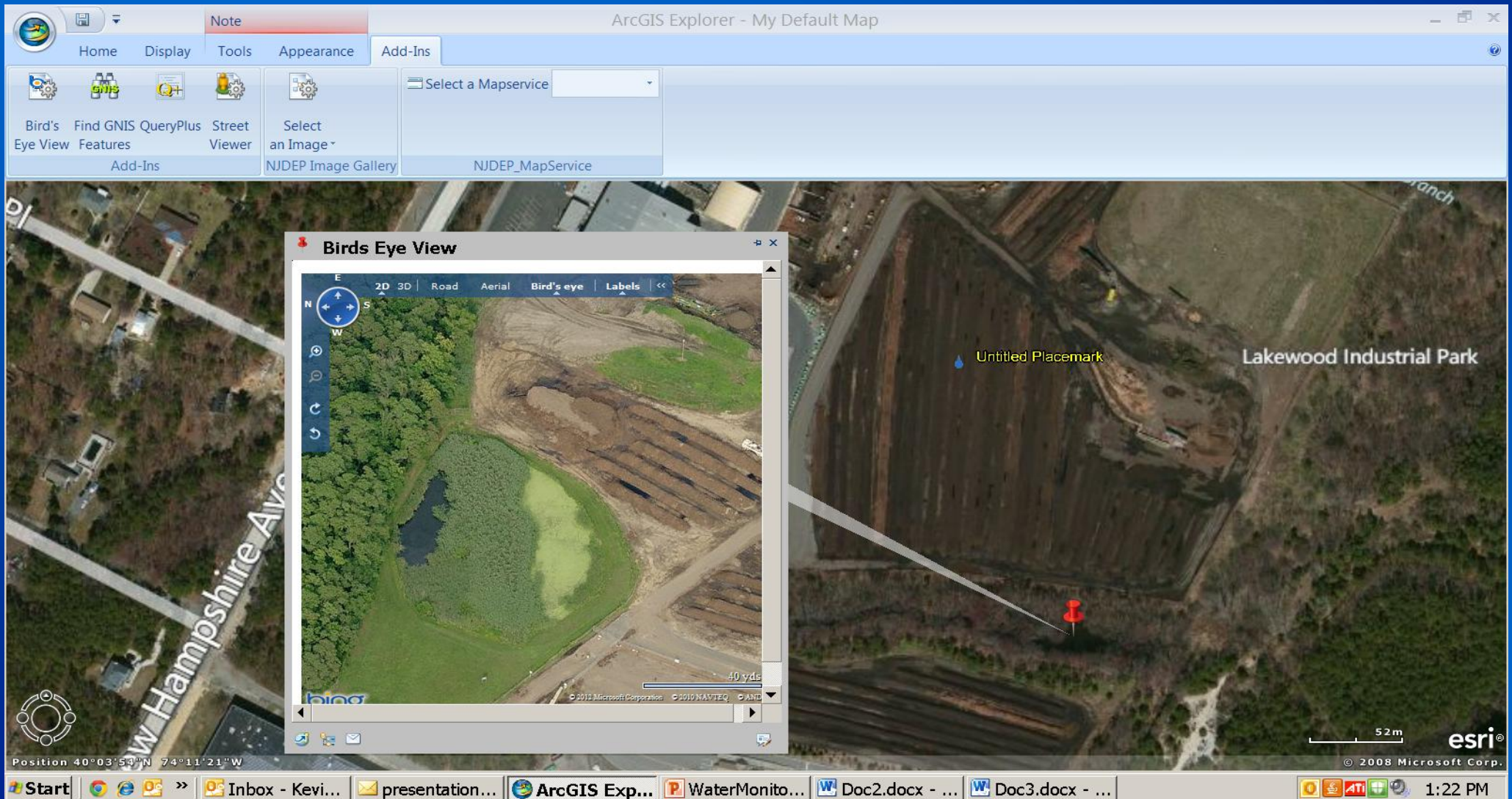
Position 39°58'06"N 74°14'39"W

esri® Source: USGS

10:38 AM



# Use of Aerial Photography





# Permitting and Monitoring cooperative potential

